

IN THE SPECIFICATION:

Replace the paragraph bridging pages 6 and 7 (i.e., starting with the phrase "In the embodiment") with the following paragraph.

--Included in the embodiment is: each BICDR receiver 120 includes having a temperature sensing section 121 for sensing the temperature to provide temperature sending signals; a first DC level value detecting section 162 for detecting a DC level value representing each bit rate of optical signals outputted from the DEMUX 10; and, a control device 180 for receiving the temperature sensing signals from the temperature sensing section 121 of the corresponding BICDR receiver, for receiving a DC level value representing each bit rate of the optical signal outputted from the DEMUX 110, and for receiving a bit-rate error signal from each BICDR receiver 120. Here, the optical signals supplied to the BICDR receivers 120 and the first DC level value detecting-section 162 from the DMUX 110 are the same.--

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Replace the first paragraph on page 8 (i.e., starting "According to the embodiment") with the following paragraph.

--According to the embodiment of the present invention, the inputted optical signals passing through the DMUX 110 are demultiplexed into different channels according to the wavelengths. The optical signals outputted from the DMUX are transduced into the corresponding electric signals. At this time, a clock and data are recovered from the demultiplexed signals according to the bit rate of the converted electric signals and transmitted ~~to~~^{by} the respective BICDR receivers 120. Subsequently, the BICDR receivers 120 output a bit-rate error signal, i.e., a PLL signal, if current bit rate is not consistent with a pre-set bit rate. The first PSC 122 converts the PLL signals

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received from each BICDR receiver 120 and convert them in form of a serial signal to be supplied to the first SPC 182 of the control device 180. In response, the first SPC 182 converts the output signals of the first PSC 122 in a serial type to parallel signals, then forwards the converted parallel signals to the CPU 181 of the control device 180.—

Replace the abstract as follows:

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--Disclosed is a self-healing bit rate transducer in an optical transmission system and includes a demultiplexer for demultiplexing optical signals into different wavelength channels; a plurality of bit rate receivers ~~coupled to the output of the demultiplexing~~ means for converting the demultiplexed optical signals into the corresponding electrical signals, and for generating a bit-rate error signal, ~~and the bit rate receiver having a~~ sensing means for generating a temperature reference signal; a detecting section ~~coupled to the output of said demultiplexer~~ for generating a signal indicative of the bit rate of the optical signals outputted therefrom ~~the demultiplexer~~; and, a controller for comparing the ~~detected~~ bit rate detected by the detecting section with a predetermined data to generate a control signal that is used to adjust the bit rate of the respective bit rate receiver.--